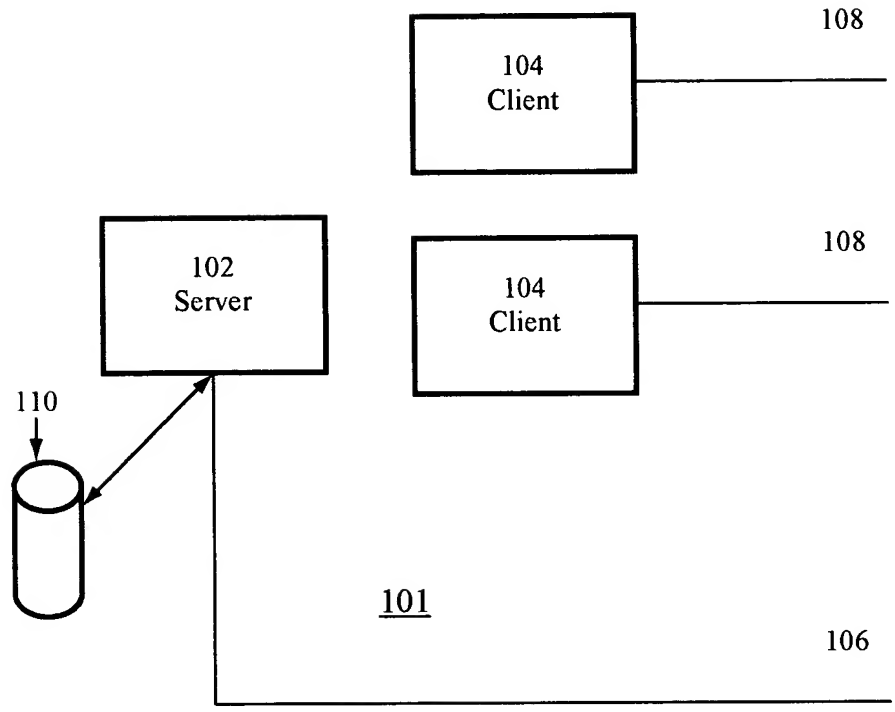


FIG 1

BEST AVAILABLE COPY

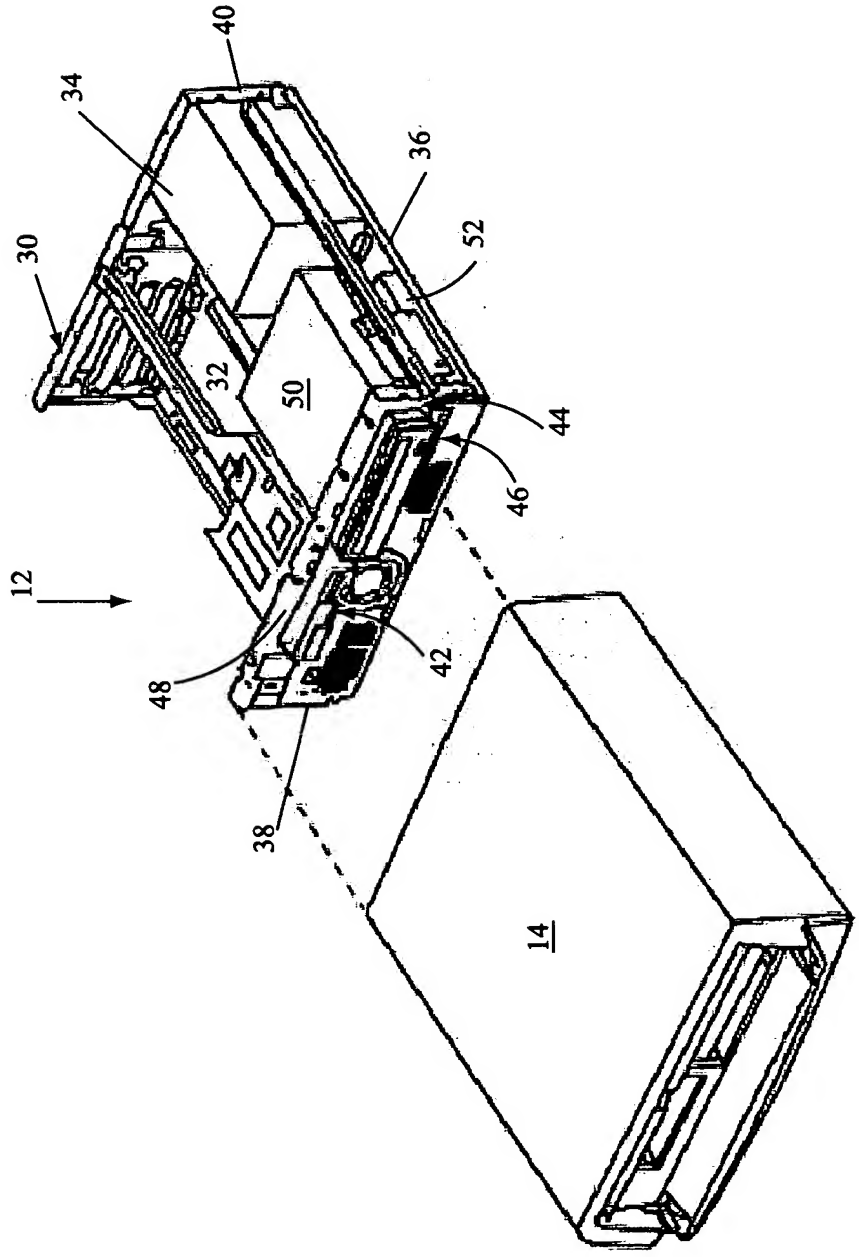


FIG 2

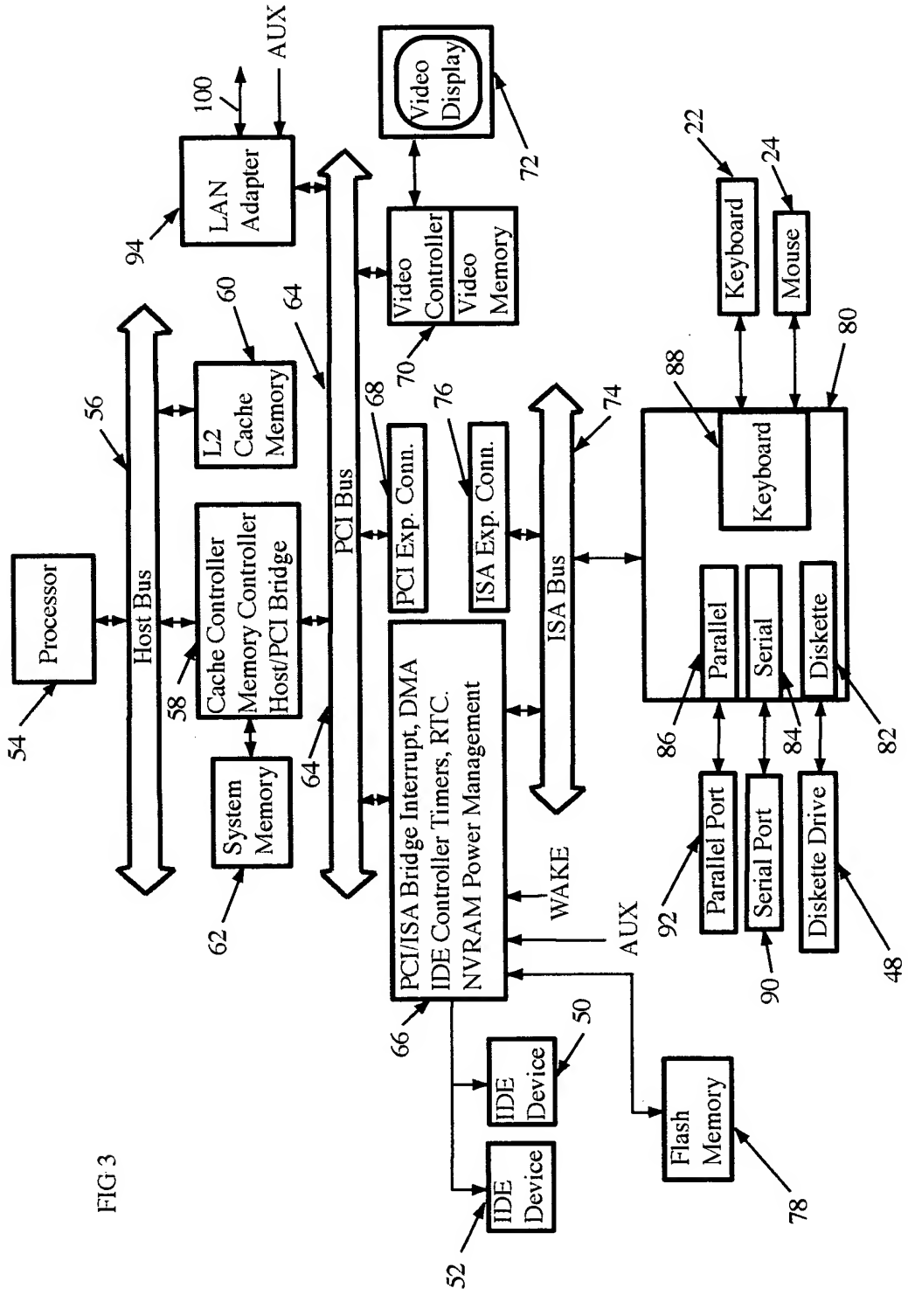

Processor
54
Host Bus
56
Cache Controller
Memory Controller
Host/PCI Bridge
58
L2
Cache
Memory
60
System
Memory
62
64
PCI Bus
PCI Exp. Conn.
68
ISA Exp. Conn.
76
ISA Bus
74
PCI/ISA Bridge Interrupt, DMA
IDE Controller Timers, RTC.
NVRAM Power Management
66
WAKE
AUX
IDE
Device
50
IDE
Device
52
Flash
Memory
78
LAN
Adapter
100
AUX
94
Video
Controller
Video
Memory
70
Video
Display
72
Keyboard
88
Keyboard
22
Mouse
24
80
Parallel
Serial
Diskette
86
84
82
Parallel Port
Serial Port
Diskette Drive
92
90
48

FIG 3

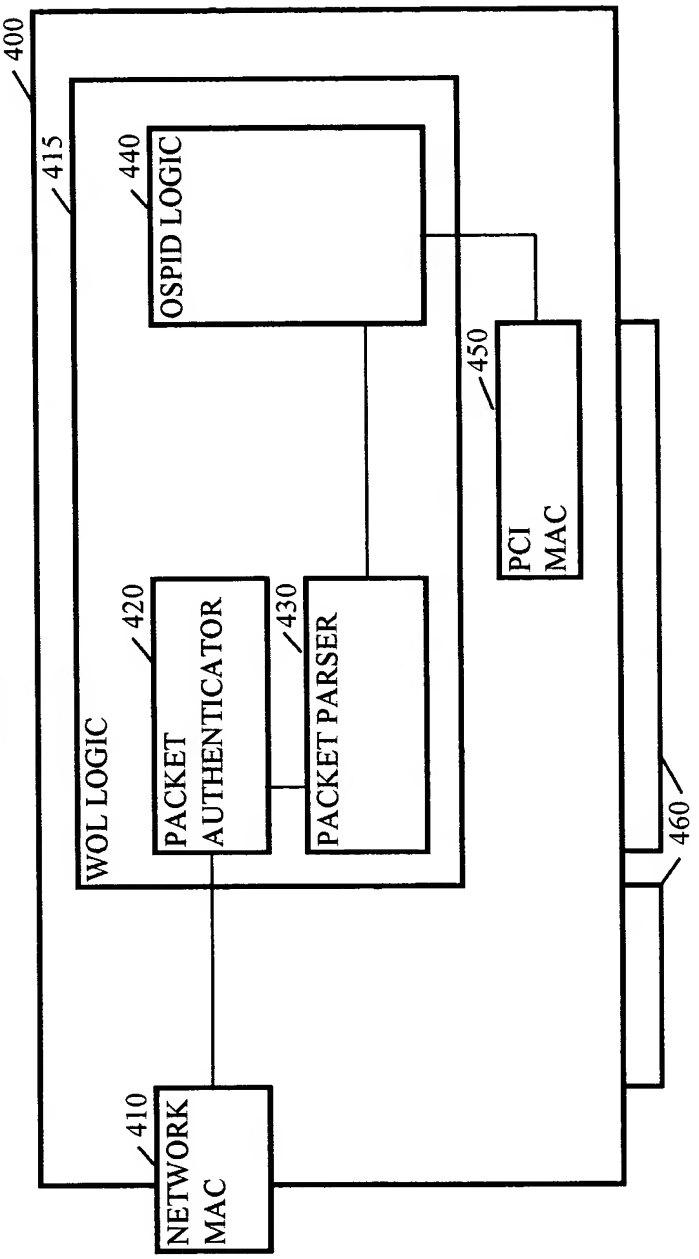
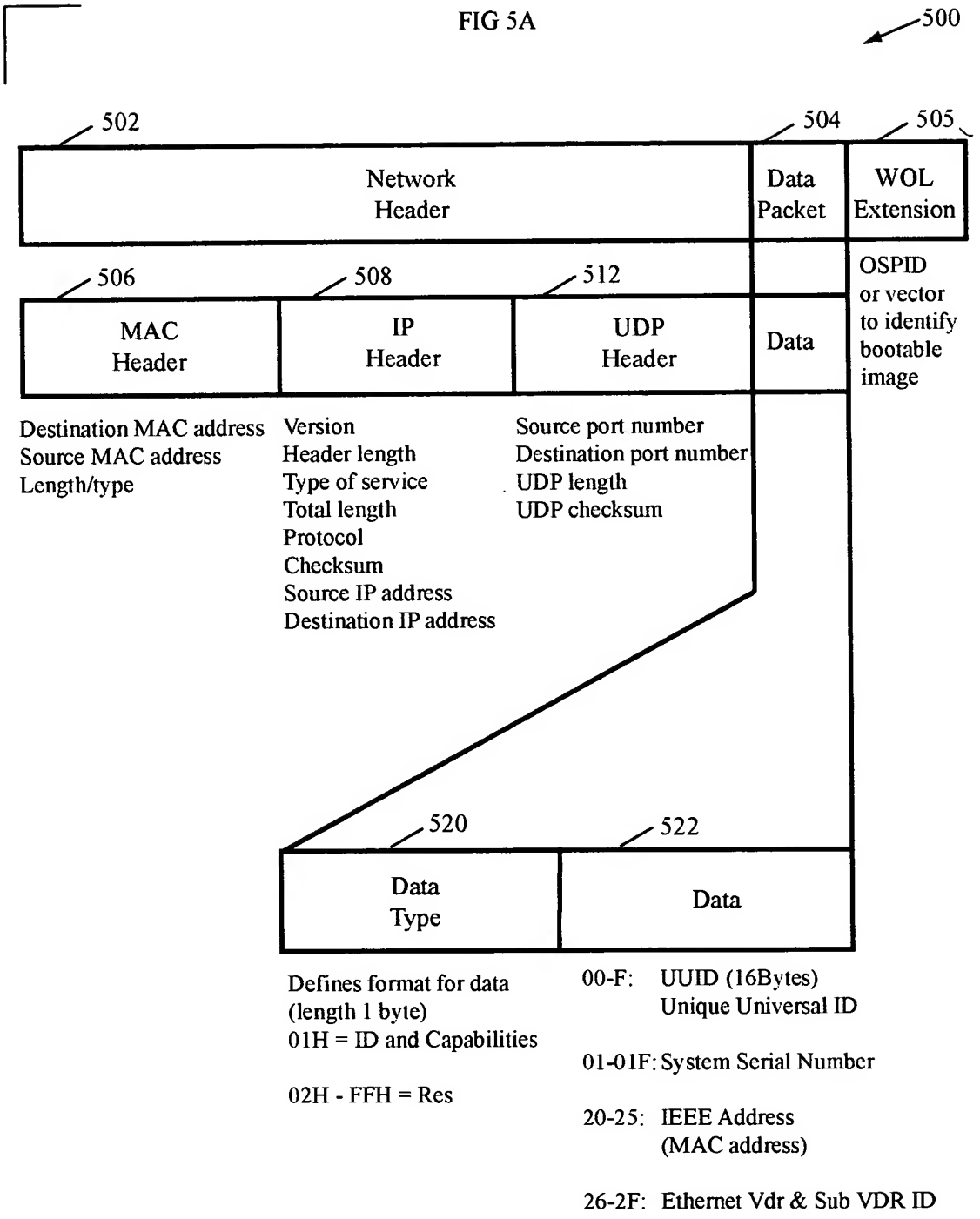

400
415
440
OSPID LOGIC
450
PCI
MAC
420
PACKET
AUTHENTICATOR
430
PACKET PARSER
WOL LOGIC
460
410
NETWORK
MAC

FIG 4

FIG 5A


500
502
504
505
Network Header
Data Packet
WOL Extension
506
508
512
MAC Header
IP Header
UDP Header
Data
OSPID or vector to identify bootable image
Destination MAC address
Source MAC address
Length/type
Version
Header length
Type of service
Total length
Protocol
Checksum
Source IP address
Destination IP address
Source port number
Destination port number
UDP length
UDP checksum
520
522
Data Type
Data
Defines format for data (length 1 byte)
01H = ID and Capabilities
02H - FFH = Res
00-F: UUID (16Bytes) Unique Universal ID
01-01F: System Serial Number
20-25: IEEE Address (MAC address)
26-2F: Ethernet Vdr & Sub VDR ID

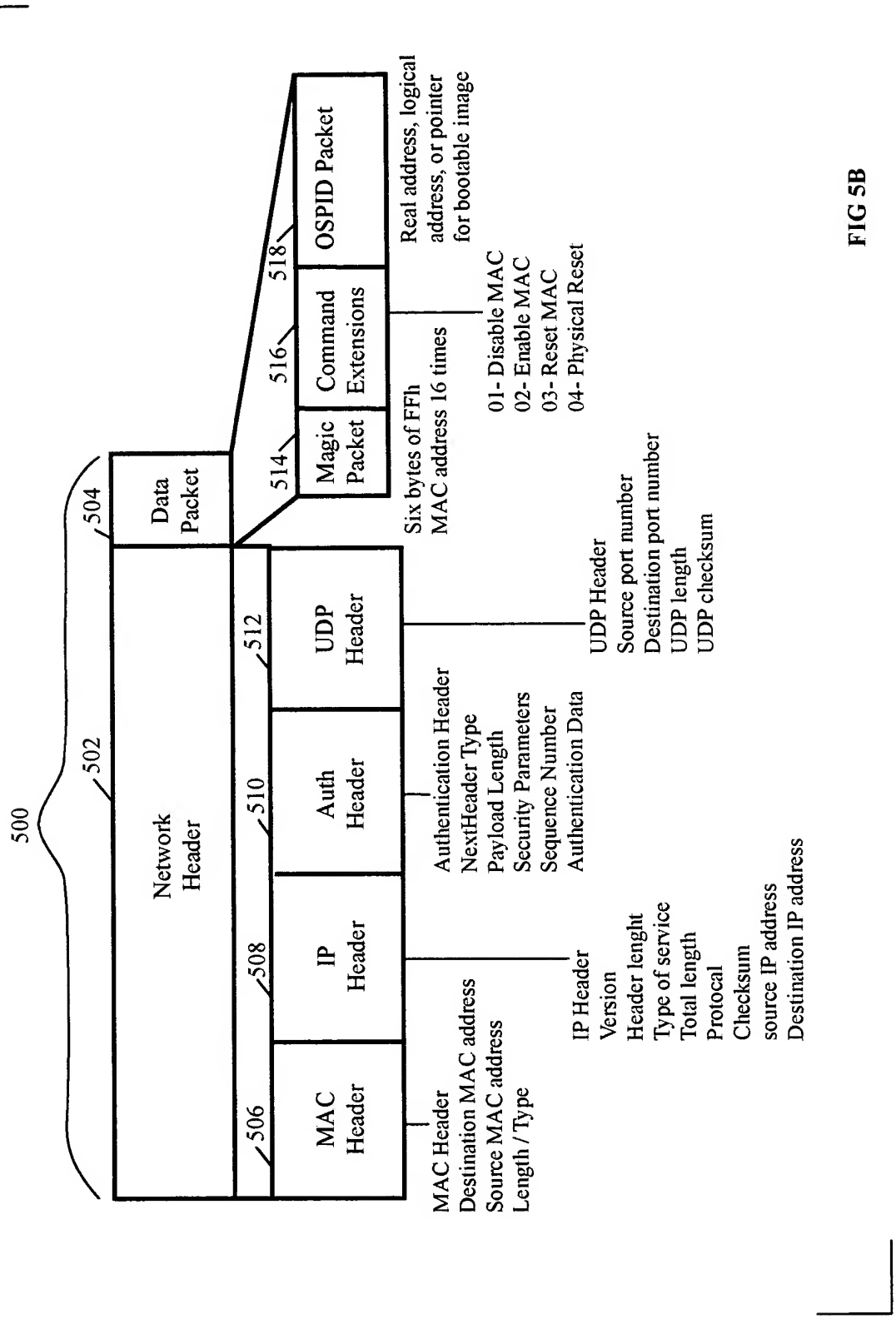
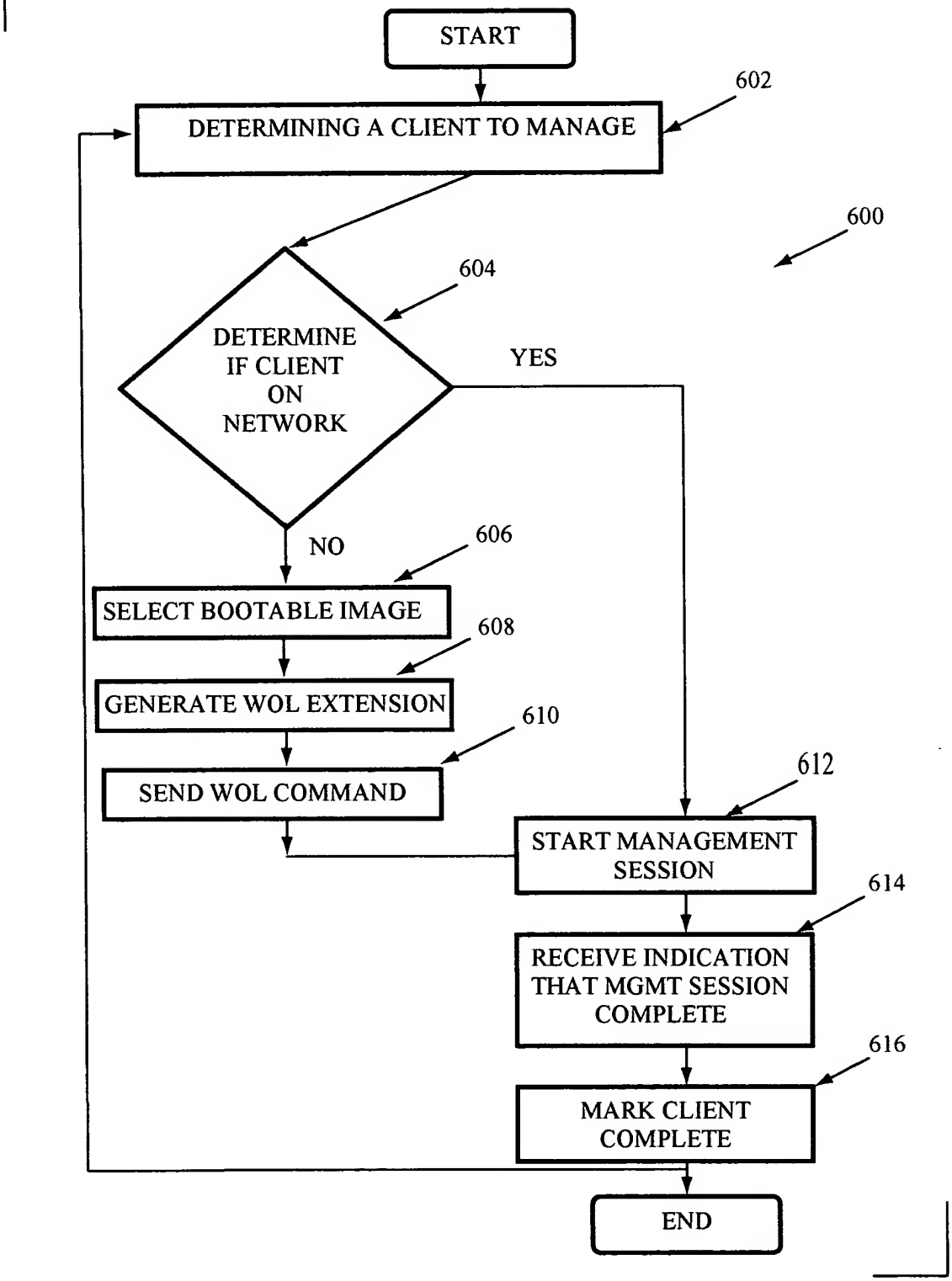

500
502
Network Header
504
Data Packet
506
MAC Header
508
IP Header
510
Auth Header
512
UDP Header
514
Magic Packet
516
Command Extensions
518
OSPID Packet
MAC Header
Destination MAC address
Source MAC address
Length / Type
IP Header
Version
Header lenght
Type of service
Total length
Protocal
Checksum
source IP address
Destination IP address
Authentication Header
NextHeader Type
Payload Length
Security Parameters
Sequence Number
Authentication Data
UDP Header
Source port number
Destination port number
UDP length
UDP checksum
Six bytes of FFh
MAC address 16 times
01- Disable MAC
02- Enable MAC
03- Reset MAC
04- Physical Reset
Real address, logical address, or pointer for bootable image

FIG 5B

FIG 6

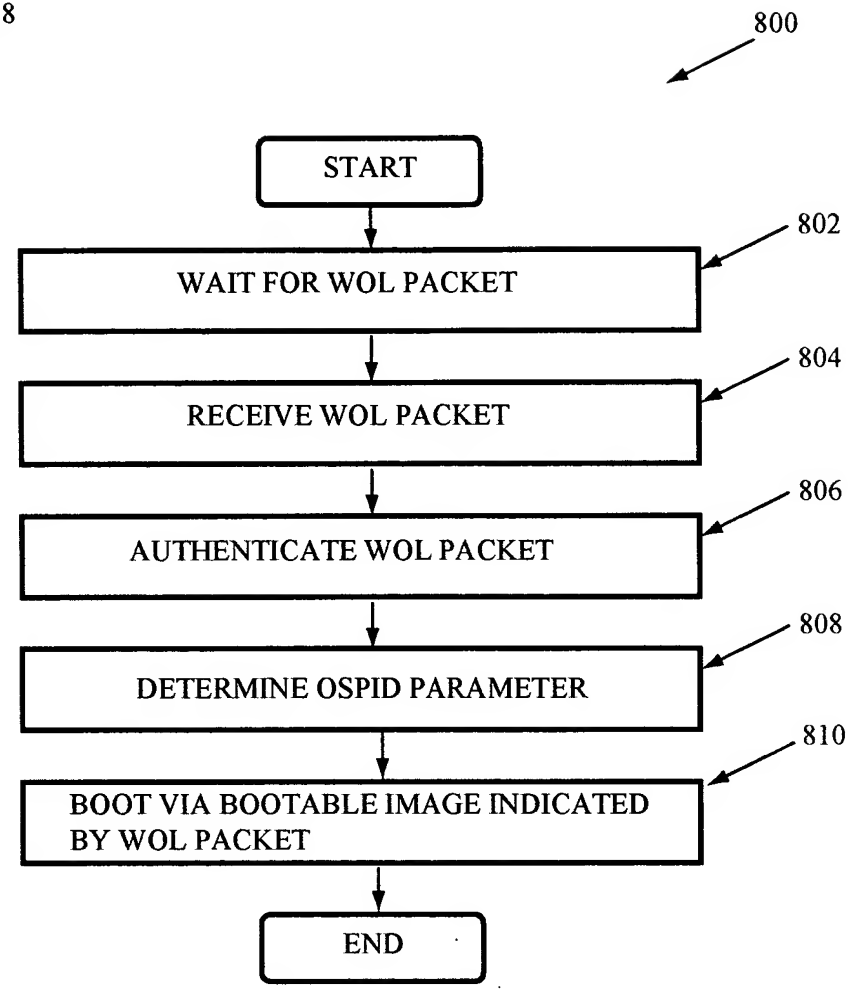

START
602
DETERMINING A CLIENT TO MANAGE
600
604
DETERMINE IF CLIENT ON NETWORK
YES
NO
606
SELECT BOOTABLE IMAGE
608
GENERATE WOL EXTENSION
610
SEND WOL COMMAND
612
START MANAGEMENT SESSION
614
RECEIVE INDICATION THAT MGMT SESSION COMPLETE
616
MARK CLIENT COMPLETE
END

700

702	704	706	708	710
Clients to Manage	On Network	WOL Status	Client Able to be Managed	Update Status
	Yes/No	Enable/Disable	Yes/No	Yes/No/In Progress
1				
2				
3				
n				

FIG 7

FIG 8


800
START
802
WAIT FOR WOL PACKET
804
RECEIVE WOL PACKET
806
AUTHENTICATE WOL PACKET
808
DETERMINE OSPID PARAMETER
810
BOOT VIA BOOTABLE IMAGE INDICATED BY WOL PACKET
END